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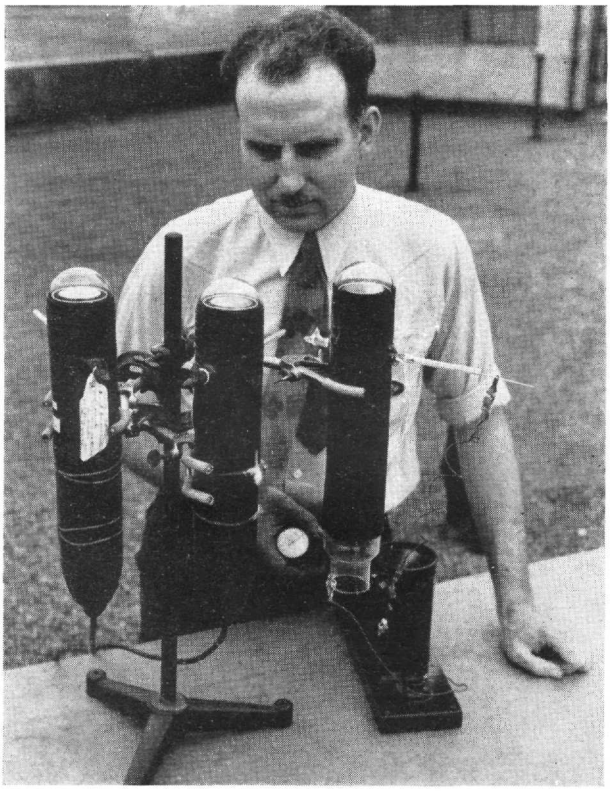
ELECTRONIC EYE MEASURES SUNFALL

Sensitive electronic "eyes" will be used to measure the daily sunfall in the United States to study its effect on the wartime health of the nation. The new sun measuring instruments eventually will operate in twenty of the world's first solar observation posts to be set up for a nationwide ultra-violet study by the weather bureau.

The ultra-violet sun meter resembles a long oversized radio tube. At one end of the instrument is a flat metal button about the size of a half dollar and surrounded by a circular wire electrode. The ultra-violet in the sun's rays, striking the surface of the disk causes a stream of photo-electrons to travel to the electrode. This current is so small that it is measured in micro-amperes.



—Courtesy Westinghouse.

This Ultra-violet Sun Meter Changes Ultra-violet Light to Micro-amperes

From the electrode, the photo-electrons pass into a tiny condenser which stores up the energy over a period of seconds and then releases it in a single charge across an electrical circuit in the tube. The number and frequency of such charges determine the total radiation in a given period of time.
